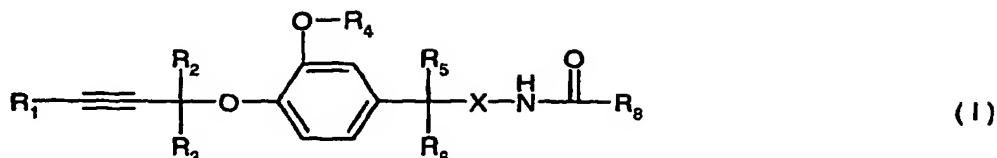


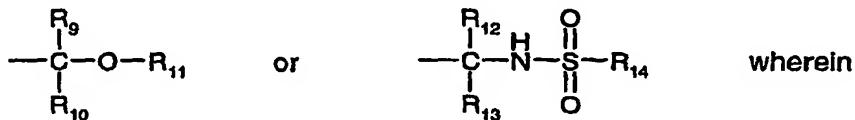
- 50 -

What is claimed is:

1. A compound of formula I



including the optical isomers thereof and mixtures of such isomers, wherein
 R₁ is hydrogen, C₁-C₆-alkyl, C₃-C₆-cycloalkyl, phenyl or naphthyl; phenyl and naphthyl being optionally substituted by one to three substituents selected from the group comprising C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₁-C₆-haloalkyl, C₁-C₆-alkoxy, C₁-C₆-haloalkoxy, C₁-C₆-alkylthio, C₁-C₆-haloalkylthio, C₁-C₆-alkylsulfonyl, halogen, cyano and nitro;
 R₂, R₃, R₅, R₆, and R₇ are each independently of each other hydrogen or C₁-C₆-alkyl;
 R₄ is C₁-C₆-alkyl; or
 X is O or N-R₇; and
 R₈ is a group



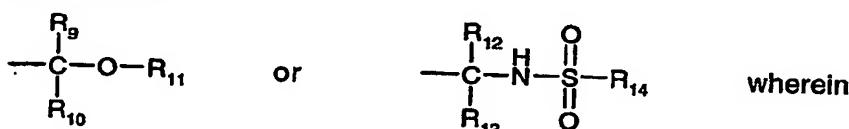
R₉ is phenyl, naphthyl, 1,3-biphenyl or 1,4-biphenyl, each optionally substituted by one to three substituents selected from the group comprising C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₁-C₆-haloalkyl, C₁-C₆-alkoxy, C₁-C₆-haloalkoxy, C₁-C₆-alkylthio, C₁-C₆-haloalkylthio, C₁-C₆-alkylsulfonyl, halogen, cyano, nitro and C₁-C₆-alkoxycarbonyl;
 R₁₀ and R₁₁ are each independently hydrogen, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₃-C₆-alkenyl or C₃-C₆-alkynyl;
 R₁₂ is C₁-C₆-alkyl, C₃-C₆-cycloalkyl, phenyl or naphthyl; phenyl and naphthyl being optionally substituted by one to three substituents selected from the group comprising C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₁-C₆-haloalkyl, C₁-C₆-alkoxy, C₁-C₆-haloalkoxy, C₁-C₆-alkylthio, C₁-C₆-haloalkylthio, C₁-C₆-alkylsulfonyl, aryl, halogen, cyano and nitro
 R₁₃ is hydrogen, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₃-C₆-alkenyl or C₃-C₆-alkynyl; and
 R₁₄ is C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₁-C₆-alkylamino or C₁-C₆-dialkylamino.

2. A compound according to claim 1 wherein R₁₀ is hydrogen or C₁-C₆-alkyl, X is oxygen, R₈ is -C(R₉R₁₀)-OR₁₁ and R₁₁ is hydrogen or C₃-C₆-alkynyl.

3. A compound according to claim 1 wherein X is oxygen, R₈ is $-\text{C}(\text{R}_{12}\text{R}_{13})\text{NH-SO}_2\text{R}_{14}$, and R₁₂ is C₁-C₈-alkyl or branched C₁-C₈-alkyl.

4. A compound of formula I according to any of claims 1 to 3, wherein
 R_1 is hydrogen, C_1 - C_8 -alkyl, C_3 - C_8 -cycloalkyl, phenyl or naphthyl; phenyl and naphthyl being optionally substituted by one to three substituents selected from the group comprising C_1 - C_8 -alkyl, C_2 - C_8 -alkenyl, C_2 - C_8 -alkynyl, C_1 - C_8 -haloalkyl, C_1 - C_8 -alkoxy, C_1 - C_8 -haloalkoxy, C_1 - C_8 -alkylthio, C_1 - C_8 -haloalkylthio, C_1 - C_8 -alkylsulfonyl, halogen, cyano and nitro;
 R_4 is C_1 - C_8 -alkyl; or

R_8 is a group



R_9 is phenyl, naphthyl, 1,3-biphenyl or 1,4-biphenyl, each optionally substituted by one to three substituents selected from the group comprising C_1 - C_8 -alkyl, C_2 - C_8 -alkenyl, C_2 - C_8 -alkynyl, C_1 - C_8 -haloalkyl, C_1 - C_8 -alkoxy, C_1 - C_8 -haloalkoxy, C_1 - C_8 -alkylthio, C_1 - C_8 -haloalkylthio, C_1 - C_8 -alkylsulfonyl, halogen, cyano, nitro and C_1 - C_8 -alkoxycarbonyl; R_{11} is hydrogen, C_1 - C_8 -alkyl or C_3 - C_8 -alkynyl; and R_{14} is C_1 - C_8 -alkyl, C_1 - C_8 -haloalkyl, C_1 - C_8 -alkylamino or C_1 - C_8 -dialkylamino.

5. A compound of formula I according to any of claims 1 to 4, wherein R₁ is hydrogen, C₁-C₈-alkyl, C₃-C₈-cycloalkyl; and R₂, R₃, R₅ and R₆ are hydrogen; and R₄ is C₁-C₆-alkyl; and R₉ is phenyl, naphthyl, 1,3-biphenyl or 1,4-biphenyl, each optionally substituted by one to three substituents selected from the group comprising C₁-C₈-alkyl, C₂-C₈-alkenyl, C₂-C₈-alkynyl, C₁-C₈-haloalkyl, C₁-C₈-alkoxy, C₁-C₈-haloalkoxy, C₁-C₈-alkylthio, C₁-C₈-haloalkylthio, C₁-C₈-alkylsulfonyl, halogen, cyano, nitro and C₁-C₈-alkoxycarbonyl; and R₁₀ is hydrogen or C₁-C₄-alkyl; and R₁₁ is hydrogen, C₁-C₈-alkyl or C₂-C₈-alkynyl; and R₁₂ is C₁-C₈-alkyl, C₃-C₆-cycloalkyl, C₃-C₈-alkenyl, C₃-C₈-alkynyl; phenyl or benzyl wherein the phenyl and benzyl is optionally substituted by one to three substituents selected from the group comprising C₁-C₈-alkyl, C₂-C₈-alkenyl, C₂-C₈-alkynyl, C₁-C₈-haloalkyl, C₁-C₈-alkoxy, C₁-C₈-haloalkoxy, C₁-C₈-alkylthio, C₁-C₈-haloalkylthio, C₁-C₈-alkylsulfonyl, halogen, cyano, nitro and C₁-C₈-alkoxycarbonyl; and R₁₃ is hydrogen or C₁-C₄-alkyl; and R₁₄ is C₁-C₆-alkyl; C₁-C₆-monoalkylamino or C₁-C₆-dialkylamino.

- 51 ~~as~~

6. A compound of formula I according to any of claims 1 to 5, wherein R_1 is hydrogen or C_1 - C_6 -alkyl, and R_2 , R_3 , R_5 and R_6 are hydrogen; and R_4 is methyl or ethyl; and R_9 is phenyl or naphthyl each optionally substituted by one to three substituents selected from the group comprising C_1 - C_6 -alkyl, C_1 - C_6 -haloalkyl, C_1 - C_6 -alkoxy, C_1 - C_6 -haloalkoxy, C_1 - C_6 -alkylthio, C_1 - C_6 -haloalkylthio, halogen, cyano, nitro and C_1 - C_6 -alkoxycarbonyl; and R_{10} and R_{13} are

each hydrogen; and R_{11} is hydrogen or C_2 - C_6 -alkynyl; and R_{12} is C_2 - C_6 -alkyl or C_3 - C_6 -cycloalkyl; and R_{14} is C_1 - C_6 -alkyl or C_1 - C_6 -dialkylamino.

7. A compound of formula I according to claim 1 selected from the group comprising 2-hydroxy-N-(3-methoxy-4-prop-2-ynylloxy-benzylloxy)-2-phenyl-acetamide, N-(3-methoxy-4-prop-2-ynylloxy-benzylloxy)-2-phenyl-2-prop-2-ynylloxy-acetamide, 2-hydroxy-N-(3-methoxy-4-pent-2-ynylloxy-benzylloxy)-2-phenyl-acetamide, N-(3-methoxy-4-pent-2-ynylloxy-benzylloxy)-2-phenyl-2-prop-2-ynylloxy-acetamide, 2-(4-chloro-phenyl)-2-hydroxy-N-(3-methoxy-4-prop-2-ynylloxy-benzylloxy)-acetamide, 2-(4-chloro-phenyl)-N-(3-methoxy-4-prop-2-ynylloxy-benzylloxy)-2-prop-2-ynylloxy-acetamide, 2-(4-chloro-phenyl)-2-hydroxy-N-(3-methoxy-4-pent-2-ynylloxy-benzylloxy)-acetamide, 2-(4-chloro-phenyl)-N-(3-methoxy-4-pent-2-ynylloxy-benzylloxy)-2-prop-2-ynylloxy-acetamide, 2-(4-bromo-phenyl)-2-hydroxy-N-(3-methoxy-4-prop-2-ynylloxy-benzylloxy)-acetamide, 2-(4-bromo-phenyl)-N-(3-methoxy-4-prop-2-ynylloxy-benzylloxy)-2-prop-2-ynylloxy-acetamide, 2-(4-bromo-phenyl)-2-hydroxy-N-(3-methoxy-4-pent-2-ynylloxy-benzylloxy)-acetamide, 2-(4-bromo-phenyl)-N-(3-methoxy-4-pent-2-ynylloxy-benzylloxy)-2-prop-2-ynylloxy-acetamide, 2-(3,4-dichloro-phenyl)-2-hydroxy-N-(3-methoxy-4-prop-2-ynylloxy-benzylloxy)-acetamide, 2-(3,4-dichloro-phenyl)-N-(3-methoxy-4-prop-2-ynylloxy-benzylloxy)-2-prop-2-ynylloxy-acetamide, 2-(3,4-dichloro-phenyl)-2-hydroxy-N-(3-methoxy-4-pent-2-ynylloxy-benzylloxy)-acetamide, 2-(3,4-dichloro-phenyl)-N-(3-methoxy-4-pent-2-ynylloxy-benzylloxy)-2-prop-2-ynylloxy-acetamide, (*S*)-2-methylsulfonylamino-N-(3-methoxy-4-prop-2-ynylloxy-benzylloxy)-3-methyl-butyramide, (*S*)-2-methylsulfonylamino-N-(3-methoxy-4-pent-2-ynylloxy-benzylloxy)-3-methyl-butyramide, (*S*)-N-[4-[3-(4-chloro-phenyl)-prop-2-ynylloxy]-3-methoxy-benzylloxy]-2-methylsulfonylamino-3-methyl-butyramide, (*S*)-2-ethylsulfonylamino-N-(3-methoxy-4-prop-2-ynylloxy-benzylloxy)-3-methyl-butyramide, (*S*)-N-[4-[3-(4-chloro-phenyl)-prop-2-ynylloxy]-3-methoxy-benzylloxy]-2-N,N'-dimethylamino-sulfonylamino-3-methyl-butyramide, 2-(4-ethyl-phenyl)-2-hydroxy-N-(3-methoxy-4-prop-2-ynylloxy-benzylloxy)-acetamide, 2-(4-ethyl-phenyl)-2-hydroxy-N-(3-methoxy-4-pent-2-ynylloxy-benzylloxy)-acetamide, (*S*)-2-ethylsulfonylamino-N-(3-methoxy-4-pent-2-ynylloxy-benzylloxy)-3-methyl-butyramide,

(S)-N-{4-[3-(4-chloro-phenyl)-prop-2-ynyl]-3-methoxy-benzyl}-2-ethanesulfonylamino-3-methyl-butyramide,
hydroxy-phenyl-acetic acid N'-(3-methoxy-4-prop-2-ynyl-benzyl)-hydrazide,
phenyl-prop-2-ynyl-acetic acid N'-(3-methoxy-4-prop-2-ynyl-benzyl)-hydrazide,
hydroxy-phenyl-acetic acid N'-(3-methoxy-4-pent-2-ynyl-benzyl)-hydrazide,
phenyl-prop-2-ynyl-acetic acid N'-(3-methoxy-4-pent-2-ynyl-benzyl)-hydrazide,
(4-chloro-phenyl)-hydroxy-acetic acid N'-(3-methoxy-4-prop-2-ynyl-benzyl)-hydrazide,
(4-chloro-phenyl)-prop-2-ynyl-acetic acid N'-(3-methoxy-4-prop-2-ynyl-benzyl)-hydrazide,
(4-chloro-phenyl)-hydroxy-acetic acid N'-(3-methoxy-4-pent-2-ynyl-benzyl)-hydrazide,
(4-chloro-phenyl)-prop-2-ynyl-acetic acid N'-(3-methoxy-4-pent-2-ynyl-benzyl)-hydrazide,
(4-bromo-phenyl)-hydroxy-acetic acid N'-(3-methoxy-4-prop-2-ynyl-benzyl)-hydrazide,
(4-bromo-phenyl)-prop-2-ynyl-acetic acid N'-(3-methoxy-4-prop-2-ynyl-benzyl)-hydrazide,
(4-bromo-phenyl)-hydroxy-acetic acid N'-(3-methoxy-4-pent-2-ynyl-benzyl)-hydrazide,
(4-bromo-phenyl)-prop-2-ynyl-acetic acid N'-(3-methoxy-4-pent-2-ynyl-benzyl)-hydrazide,
(3,4-dichloro-phenyl)-hydroxy-acetic acid N'-(3-methoxy-4-prop-2-ynyl-benzyl)-hydrazide,
(3,4-dichloro-phenyl)-prop-2-ynyl-acetic acid N'-(3-methoxy-4-prop-2-ynyl-benzyl)-hydrazide,
(3,4-dichloro-phenyl)-hydroxy-acetic acid N'-(3-methoxy-4-pent-2-ynyl-benzyl)-hydrazide,
(3,4-dichloro-phenyl)-prop-2-ynyl-acetic acid N'-(3-methoxy-4-pent-2-ynyl-benzyl)-hydrazide,
N-{(S)-1-[N'-(3-methoxy-4-prop-2-ynyl-benzyl)-hydrazinocarbonyl]-2-methyl-propyl}-methylsulfonamide,
N-{(S)-1-[N'-(3-methoxy-4-pent-2-ynyl-benzyl)-hydrazinocarbonyl]-2-methyl-propyl}-methylsulfonamide,
N-[(S)-1-(N'-{4-[3-(4-chloro-phenyl)-prop-2-ynyl]-3-methoxy-benzyl}-hydrazinocarbonyl)-2-methyl-propyl]-methylsulfonamide,
N-{(S)-1-[N'-(3-methoxy-4-prop-2-ynyl-benzyl)-hydrazinocarbonyl]-2-methyl-propyl}-ethylsulfonamide,

N-*{(S)}*-1-[N'-*{(3-methoxy-4-pent-2-ynyoxy-benzyl)}*-hydrazinocarbonyl]-2-methyl-propyl}-ethylsulfonamide, and

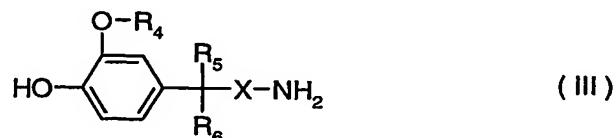
N-*{(S)}*-1-[N'-*{(4-[3-(4-chloro-phenyl)-prop-2-ynyoxy]-3-methoxy-benzyl)}*-hydrazinocarbonyl]-2-methyl-propyl]-ethylsulfonamide.

8. A process for the preparation of a compound of formula I according to claim 1, which comprises

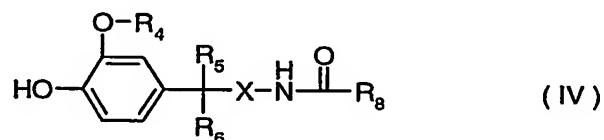
a) reacting an acid of formula II or a carboxy-activated derivative of an acid of formula II



wherein R₈ is as defined for formula I with an amine of formula III



wherein R₄, R₅, R₆ and X are as defined for formula I and reacting the intermediate phenol of formula IV

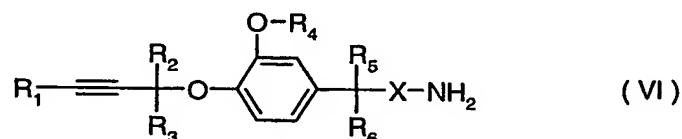


wherein R₄, R₅, R₆, R₈ and X are as defined for formula I with a compound of formula V



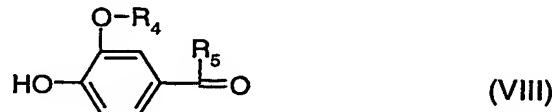
wherein R₁, R₂ and R₃ are as defined for formula I and wherein Y is a leaving group; or

b) reacting a compound of formula VI

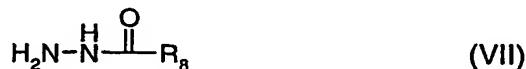


wherein R_1 , R_2 , R_3 , R_4 , R_5 , R_6 and X are as defined for formula I with an acid of formula II or a carboxy-activated derivative of an acid of formula II; or

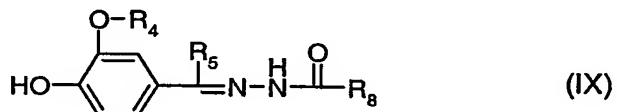
c) reacting a compound of formula VIII



wherein R_4 and R_5 are as defined for formula I with an acid hydrazide of formula VII



wherein R_8 is as defined for formula I, and hydrating the intermediate acylhydrazone of formula IX

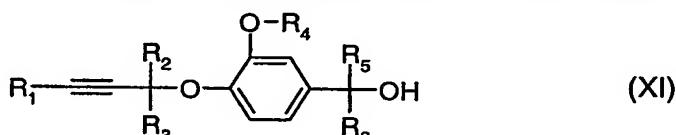


yielding in a compound of formula IVa, wherein R_4 , R_5 and R_8 are as defined for formula I; or

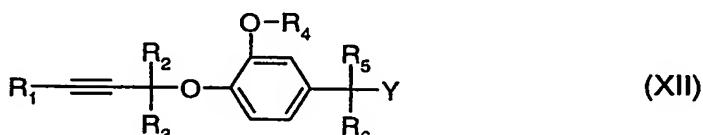
d) reacting a phenol of formula X



wherein R_4 , R_5 and R_6 are as defined for formula I, with a compound of formula V as defined above, and transforming the intermediate alcohol of formula XI



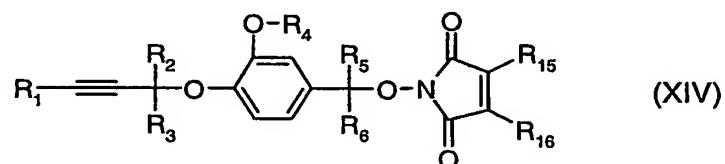
wherein R_1 , R_2 , R_3 , R_4 , R_5 and R_6 are as defined for formula I, into a compound of formula XII,



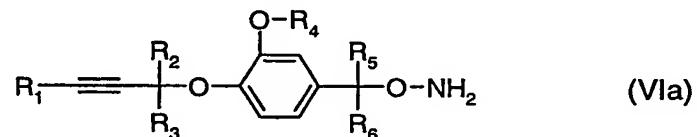
wherein R_1 , R_2 , R_3 , R_4 , R_5 and R_6 are as defined for formula I and wherein Y is a leaving group like a halide such as a chloride or bromide or a sulfonic ester such as a tosylate, mesylate or triflate, and reacting the compound of formula XII with a compound of formula XIII



wherein R₁₅ and R₁₆ are hydrogen, halogen, methyl or part of an annelated benzene ring to yield an N-alkoxyimide of formula XIV



wherein R₁, R₂, R₃, R₄, R₅ and R₆ are as defined for formula I and R₁₅ and R₁₆ are as defined for formula XIII, and reacting the N-alkoxyimide of formula XIV with an amine derivative, like methylamine or butylamine or a hydrazine derivative, such as hydrazine, hydrazine hydrate or methylhydrazine to yield a compound of formula VIa



wherein R₁, R₂, R₃, R₄, R₅ and R₆ are as defined for formula I.

9. A composition for controlling and protecting against phytopathogenic microorganisms, comprising a compound of formula I according to claim 1 as active ingredient together with a suitable carrier.

10. The use of a compound of formula I according to claim 1 or a composition according to claim 9 in protecting plants against infestation by phytopathogenic microorganisms.

11. A method of controlling and preventing an infestation of crop plants by phytopathogenic microorganisms, which comprises the application of a compound of formula I according to claim 1 or of a composition according to claim 9 as active ingredient to the plant, to parts of plants or to the locus thereof.

12. A method according to claim 11, wherein the phytopathogenic microorganisms are fungal organisms.